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PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DOUGLAS TAYLOR HAMER

Appeal 2009-001522
Application 10/725,786
Technology Center 3700

Decided: August 31, 2009

Before: JENNIFER D. BAHR, MICHAEL W. O'NEILL, and STEFAN
STAICOVICI, *Administrative Patent Judges.*

BAHR, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Douglas Taylor Hamer (Appellant) appeals under 35 U.S.C. § 134 (2002) from the Examiner's decision rejecting claim 17, which is the only claim pending in the present application. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

The Invention

Appellant's claimed invention is directed to a novelty "straw to be used by two people to share a viscous drink in a humorous and quasi-competitive manner." Spec., para. [0001].

Claim 17, reproduced below, is the only claim involved in this appeal.

17. A beverage dispenser, comprising;

a semi-rigid hollow straw having two open ends, said straw having sidewalls with a minimum thickness of 0.02 inches and said straw being substantially open from end to end;

end-caps on each of said two open ends;

a beverage selected from the group consisting of jellied drinks, granatas^[1], slushes, and precursors thereof filling the hollow of said straw;

said end-caps being removable;

whereby said beverage is dispensed in either direction from said straw by application of positive pressure at one of said two open ends and application of negative pressure at the other of said two open ends.

¹ Claim 17 uses the term "granatas," so we use that term throughout the opinion, when discussing the claim limitation. However, we presume Appellants intended the term "granitas," as used in the Specification, in paragraph [0004].

The Rejection

Appellant seeks review of the Examiner's rejection of claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Benefiel (US 4,981,468, issued Jan. 1, 1991) and Spangrud (US 5,045,195, issued Sep. 3, 1991).

SUMMARY OF DECISION

We AFFIRM.

ISSUE

In rejecting claim 17, the Examiner found that Benefiel describes a semi-rigid hollow straw having two open ends, removable caps 36 on each open end, and an agent 20 comprising a liquid/suspension formulation. Ans. 3. The Examiner further found that Benefiel's liquid/suspension formulation meets the limitation in claim 17 of slushes and precursors, and that a liquid to be ingested is a beverage. Ans. 4. The Examiner found that Benefiel does not describe the minimum sidewall thickness of 0.02 inches called for in claim 17. Ans. 3. The Examiner found that Spangrud teaches a beverage dispenser comprising a straw having a sidewall thickness of about 0.035 inches. *Id.* The Examiner thus concluded that it would have been obvious to a person of ordinary skill in the art to modify the device of Benefiel by providing a minimum sidewall thickness of 0.02 inches as taught by Spangrud, in order to form a more durable dispenser. *Id.*

Appellant argues that neither Benefiel's straw nor Spangrud's straw contains a beverage, much less "a beverage selected from the group consisting of jellied drinks, granatas, slushes, and precursors thereof" as called for in claim 17. App. Br. 7. In particular, Appellant argues that the

particles or granules of Benefiel do not constitute a beverage, but become an additive thereto. *Id.*

Appellant additionally argues that neither Benefiel nor Spangrud describes a straw that is substantially open from end to end, as called for in claim 17. App. Br. 9. In particular, Appellant points to Benefiel's teaching of a grid and an optional one-way valve as teaching away from a bi-directional dispensing of its agent. App. Br. 9-10.

Appellant further argues that Benefiel does not teach the claimed sidewall thickness, and alleges that the Examiner has combined Benefiel and Spangrud, without explanation, to address this limitation. App. Br. 11. According to Appellant, if one were to fairly combine Spangrud with Benefiel, the result would be a straw having granules or particulate, as well as a filtration medium, which would still be operable in only one direction. App. Br. 12.

Accordingly, the issues raised in this appeal are as follows:

- (1) Has Appellant demonstrated the Examiner erred in finding that Benefiel satisfies the limitation in claim 17 of "a beverage selected from the group consisting of jellied drinks, granatas, slushes, and precursors thereof"?
- (2) Has Appellant demonstrated the Examiner erred in finding that Benefiel describes a straw that is "substantially open from end to end," as called for in claim 17?
- (3) Does Appellant's argument that the Examiner has combined Benefiel and Spangrud, without explanation, to address the minimum sidewall thickness limitation demonstrate error in the Examiner's rejection? More particularly, is Appellant correct

that a fair combination of Benefiel and Spangrud would result in a straw having both therapeutic agent and a filtration medium?

FACTS PERTINENT TO THE ISSUES

- FF1 The Examiner found that Benefiel's liquid/suspension formulation meets the limitation in claim 17 of slushes and precursors, and that a liquid to be ingested is a beverage. Ans. 4. Appellant does not dispute those findings.
- FF2 An ordinary and customary meaning of the term "beverage" is "any liquid for drinking, esp. other than water." *Webster's New World Dictionary* 136 (David B. Guralnik ed., 2nd Coll. Ed., Simon & Schuster, Inc. 1984).
- FF3 Jellyed drinks are not liquids. They are solids.
- FF4 Appellants' Specification does not define the term "precursor." In fact, the term "precursor" does not even appear in the Specification, apart from the claims.
- FF5 Ordinary and customary meanings of the term "precursor" include "a person or thing that goes before; forerunner; harbinger" and "a substance that precedes and is the source of another substance." *Webster's* at 1120.
- FF6 A liquid/suspension formulation is a "precursor" of a jellyed drink or slush, in that it can be turned into a gel (jellyed drink) or slush upon chilling.
- FF7 Benefiel describes a delivery device for containing and administering orally active therapeutic agents. Abstract. A

conformed-tube embodiment of Benefiel's device includes a hollow tube 212 having inlet and outlet ends 214 and 216 provided with removable end caps 36, and a loop containing the therapeutic agent 20. Col. 5, ll. 34-38, col. 7, ll. 43-67, Fig. 6.

FF8 Benefiel teaches using the conformed-tube embodiment to contain liquid/suspension formulations of therapeutic agents, as well as therapeutic agents in particulate or pelletized form. Col. 5, ll. 45-49.

FF9 The patient can ingest therapeutic agent 20 by removing the end caps 36, placing the delivery device in one end of a conventional drinking straw 228 positioned in reservoir 222 containing consumable liquid 224, and sipping. Therapeutic agent is carried by the liquid moving up the tube 212 into the patient's mouth and alimentary canal. Col. 6, ll. 43-48, col. 7, ll. 58-67, and Fig. 6.

FF10 The delivery device 210 depicted in Figure 6 of Benefiel appears reasonably capable of use either in the orientation shown or in an inverted orientation. In other words, Benefiel's device appears reasonably capable of delivery of the therapeutic agent in either direction.

FF11 In contrast to the embodiment of Figures 1-3, in which a grid 18 is provided for retaining therapeutic agent (col. 6, ll. 67-68), Benefiel does not disclose a grid in the conformed-tube embodiment of Figure 6. The loop will contain the agent 20 without the use of a grid.

- FF12 Benefiel discloses an optional one-way valve to prevent possible siphoning of the therapeutic agent out the inlet end of the tube, in case the patient's sipping action is stopped before dose administration is complete. Col. 6, ll. 22-28. Benefiel emphasizes, however, that such a valve is not a critical component of the delivery device. Col. 6, ll. 28-30. As such, Benefiel clearly contemplates a delivery device that is not provided with a one-way valve.
- FF13 Benefiel is silent with respect to the wall thickness of the tube. Benefiel teaches that "[t]he mechanical properties and dimensions of the tube 12 [or 212] can be widely varied while still retaining delivery device functionality in accordance with this invention." Col. 6, ll. 64-66.
- FF14 Spangrud discloses a portable personal water filter, which resembles an oversized drinking straw in its appearance. Col. 2, ll. 15-17. Spangrud's filter 10 comprises a filter unit 13 including a generally tubular and elongate, plastic housing 14 having an overall length of about 6 inches and a wall thickness of about 0.035 inches. Col. 3, ll. 29-31 and 39-42.

PRINCIPLES OF LAW

Claim construction

When claim terminology is construed in the United States Patent and Trademark Office, claims are to be given their broadest reasonable interpretation consistent with the specification, reading claim language in light of the specification as it would be interpreted by one of ordinary skill in

the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Obviousness

Rejections on obviousness grounds must be supported by “some articulated reasoning with some rational underpinning” to combine the known elements in the manner required in the claim at issue. *KSR Int’l. Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). However, “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.*

Teaching away

“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994).

ANALYSIS

Issue (1)

Appellant’s argument that the particles or granules of Benefiel do not constitute a beverage, much less “a beverage selected from the group consisting of jellied drinks, granatas, slushes, and precursors thereof” as called for in claim 17, is not persuasive, as it is not directed to the liquid/suspension formulation relied upon by the Examiner as the beverage in making the rejection. The Examiner found that Benefiel’s liquid/suspension formulation (FF8) meets the limitation in claim 17 of

slushes and precursors, and that a liquid to be ingested is a beverage (FF1). Appellant does not dispute those findings (FF1), which, for the reasons that follow, appear to be fully supported by the evidence of record.

Although the term “beverage” may ordinarily be understood to be any liquid for drinking (FF2), claim 17, in reciting “a beverage selected from the group consisting of jellied drinks, granatas, slushes, and precursors thereof” expressly uses the term “beverage” in a manner so as to encompass items which are not liquids, such as jellied drinks (gels), which are solids (FF3). Accordingly, we construe the term “beverage” as including any substance for drinking. In that sense, the liquid/suspension formulation of Benefiel’s therapeutic agent (FF8) is a “beverage.” Inasmuch as Appellant has not defined the term “precursor” in the Specification, or even used the term in the Specification so as to provide guidance as to its meaning (FF4), we construe “precursor” in accordance with its customary usage, such as “a person or thing that goes before; forerunner; harbinger” or “a substance that precedes and is the source of another substance” (FF5). A liquid/suspension formulation is a “precursor” of a jellied drink or slush, in that it can be turned into a gel (jellied drink) or slush upon chilling (FF6).

For the above reasons, Appellant has not persuaded us that Benefiel’s liquid/suspension formulation of the therapeutic agent 20 is not “a beverage selected from the group consisting of jellied drinks, granatas, slushes, and precursors thereof,” as called for in claim 17.

Issue (2)

As clearly depicted in Figure 6, Benefiel’s conformed-tube embodiment of the delivery device 210 comprises a hollow tube open from the inlet end 214 to the outlet end 216, so as to permit therapeutic agent 20,

as well as consumable liquid 224, to flow freely to the outlet end and into the patient's mouth by sipping action (FF7, FF9). In contrast to the embodiment of Figures 1-3, in which a grid 18 is provided for retaining therapeutic agent (col. 6, ll. 67-68), Benefiel does not disclose a grid in the conformed-tube embodiment of Figure 6 (FF11). The loop will contain the agent 20 without the use of a grid (*id.*).

Moreover, the delivery device 210 depicted in Figure 6 of Benefiel appears reasonably capable of use either in the orientation shown or in an inverted orientation (FF10). In other words, Benefiel's device appears reasonably capable of delivery of the therapeutic agent in either direction (*id.*). Benefiel discloses an optional one-way valve, but emphasizes that such a valve is not required (FF12). As such, Benefiel clearly contemplates a delivery device that is not provided with a one-way valve (*id.*).

For the above reasons, Appellant's argument does not persuade us either that Benefiel's tube is not open from end to end, as called for in claim 1, or that Benefiel teaches away from a bi-directional dispensing of its agent.

Issue (3)

Appellant's argument that the Examiner has combined Benefiel and Spangrud, without explanation, to address the minimum sidewall thickness limitation, is not accurate. As already noted above, the Examiner found that Benefiel does not describe the minimum sidewall thickness of 0.02 inches called for in claim 17, but found that Spangrud teaches a beverage dispenser comprising a straw having a sidewall thickness of about 0.035 inches. Ans. 3. The Examiner thus concluded that it would have been obvious to a person of ordinary skill in the art to modify the device of Benefiel by providing a

minimum sidewall thickness of 0.02 inches as taught by Spangrud, in order to form a more durable dispenser. *Id.*

Benefiel is silent with respect to the wall thickness of the tube (FF13). Spangrud teaches, in a portable personal water filter device resembling an oversized drinking straw, providing the tubular housing with a wall thickness of about 0.035 inches (FF14). Although Spangrud does not specify any reason for providing such a wall thickness, we find that a person of ordinary skill in the art would have reasonably inferred from Spangrud's teachings that such a wall thickness would provide a sufficiently sturdy device while still resembling a drinking straw, even if somewhat oversized. Accordingly, the Examiner's articulated reasoning for modifying Benefiel's tube to provide a wall thickness of at least 0.020 inches, namely, in order to form a more durable dispenser, is supported by rational underpinning.

Moreover, in cases where the difference between the claimed invention and the prior art is some range or other variable within the claims, it has been consistently held that, in order to establish nonobviousness, "the applicant must show that the particular range is *critical*, generally by showing that the claimed range achieves unexpected results relative to the prior art range." *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990). Appellant has not made any such showing in this case.

For the above reasons, Appellant has not persuaded us that the Examiner erred in concluding that it would have been obvious to a person of ordinary skill in the art to provide the tube 212 of Benefiel's delivery device with a minimum wall thickness of 0.02 inches, as called for in claim 17.

We do not agree with Appellant that a fair combination of Benefiel and Spangrud would result in a straw including both therapeutic agent and a

filter medium. Obviousness does not require that all of the features of the secondary reference be bodily incorporated into the primary reference. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Moreover, the artisan is not compelled to blindly follow the teaching of one prior art reference over the other without the exercise of independent judgment. *See Lear Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 889 (Fed. Cir. 1984). The Examiner has relied on Spangrud only for its teaching of a wall thickness of 0.035 inches for a drinking straw-type device. The Examiner has not proposed incorporating the filter medium of Spangrud into the delivery device of Benefiel.

CONCLUSIONS

- (1) Appellant has not demonstrated the Examiner erred in finding that Benefiel satisfies the limitation in claim 17 of “a beverage selected from the group consisting of jellied drinks, granatas, slushes, and precursors thereof.”
- (2) Appellant has not demonstrated the Examiner erred in finding that Benefiel describes a straw that is “substantially open from end to end,” as called for in claim 17.
- (3) Appellant’s argument that the Examiner has combined Benefiel and Spangrud, without explanation, to address the minimum sidewall thickness limitation fails to demonstrate error in the Examiner’s rejection. Further, Appellant is not correct that a fair combination of Benefiel and Spangrud would result in a straw having both therapeutic agent and a filtration medium.

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Application 10/725,786

DECISION

The Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

hh

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